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The importance of highlighting wildlife conservation success in urban areas

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Abstract: Wildlife professionals in urban areas face many challenges balancing wildlife conservation and managing human–wildlife conflicts. The urban public is often more influenced by news and social media of wildlife than they are by firsthand experiences. The information they hear is typically about high-density urban species in conflict situations. Therefore, it is important to find ways to engage the public through these outlets about wildlife conservation. Recently, Cleveland Metroparks (Ohio, USA) highlighted the return of extirpated wildlife species through news and social media. This offered opportunities to capture media and public attention and share information about wildlife conservation, the value of wildlife, and the importance of natural areas.

Key words: bobcat, Cleveland Metroparks, river otter, trumpeter swan, urban wildlife, wildlife conservation

WILDLIFE PROFESSIONALS in urban areas face many challenges balancing wildlife conservation and managing human–wildlife conflict. In a world where increasing numbers of humans live in urban areas (United Nations 2014) and spend most of their time indoors (Klepeis et al. 2001), people are often disconnected with natural environments and wildlife because they have less firsthand experiences with nature (Soga and Gaston 2016). Author Richard Louv coined the term “nature-deficit disorder” (Louv 2008). His 2019 quote summarizes these concepts: “Although human beings have been urbanizing, and then moving indoors, since the introduction of agriculture, social and technological changes in the past three decades have accelerated the human disconnect from the natural world” (Louv 2019). Humans are now influenced by news and social media (McCance et al. 2017), and any firsthand experiences with wildlife are typically only with species that are adapted to suburban and urban environments (Manfredo et al. 2019).

To further complicate the situation, modern humans often do not realize the incredible influence they have on wildlife species (Dirzo et al. 2014). As a species, humans have changed our world incredibly compared to other species (Ellis 2011). However, Alberti et al. (2003) point out that traditionally humans have not been

included in ecological science despite dominating Earth’s ecosystems. The result of traditional ecology not including humans is that we often think of ourselves as independent of the natural world and do not think about our influence on other species, or as a functioning species within trophic systems (Moll et al. 2021). Urbanization and related habitat alteration influences wildlife by extirpating native species (McKinney 2006) and a general loss of specialist species (Soulsbury and White 2015). In Ohio, USA, it is estimated that 95% of the state was forested prior to Euro-American settlement (Widmann et al. 2014, Deines et al. 2016), and because of human development and agriculture, Ohio’s forest cover was reduced to approximately only 10% of the state by the 1930s (Widmann et al. 2014, Rodewald 2014, Deines et al. 2016). Reviewing Ohio’s native mammal species from this period, records indicate that 15 mammal species were extirpated by the early 1900s (Ohio Department of Natural Resources [ODNR] 2023a).

Ohio’s human population grew to 11,536,534 people by 2010 (U.S. Census Bureau 2010), and 77.4% of the population is classified as urban, living on 9.7% of Ohio’s land (Nowak and Greenfield 2010). In urban areas like this, wildlife professionals often deal with audiences who do not understand how humans contribute to higher densities of white-tailed deer

(*Odocoileus virginianus*; Côté et al. 2004), raccoons (*Procyon lotor*; Prange et al. 2003), Canada geese (*Branta canadensis*; Gosser and Conover 1999), and even coyotes (*Canis latrans*; Fedriani et al. 2001). People may fail to understand or consider how much they influence wildlife behavior and contribute to human–wildlife conflict.

Limited exposure to wildlife, usually of high-density urban “conflict” species, can result in the perception that wildlife are only a nuisance; it is important that we consider how to avoid wildlife becoming “devalued” (McCance et al. 2017). Miller (2005) asks the very important question, “If people no longer value nature or see it as relevant to their lives, will they be willing to invest in its protection?” In urban areas, wildlife professionals often must spend their time addressing perceived risk from wildlife (Bruskotter et al. 2017) rather than urban conservation and restoration (McKinney 2006). Wildlife professionals have responsibilities to reduce human–wildlife conflict in urban systems. However, it is very important to also highlight wildlife conservation success as a strategy to reconnect people with nature (Soga and Gaston 2016), add value to wildlife (Soulsbury and White 2015), and illustrate the importance of wildlife conservation. Conservation management success stories are an important way to highlight wildlife value and diversity in urban areas and provide opportunities to share scientific information about human–wildlife interactions.

Cleveland Metroparks is a separate political subdivision of the state of Ohio that was established in 1917 and now has >25,000 acres (approx. 10,000 ha) in northeastern Ohio (Cleveland Metroparks 2023). Recently, Cleveland Metroparks had the opportunity to share wildlife conservation information with the public during news and social media releases about the return of extirpated species. Native river otters were extirpated from Ohio by the early 1900s (ODNR 2023b). The Ohio Division of Wildlife implemented a river otter reintroduction program from 1988 through 1993 (Helon 2006). In 2021, Cleveland Metroparks Natural Resources staff observed a river otter (*Lontra canadensis*) on one of its properties. Wildlife camera monitoring recorded the presence of an adult and 2 young otters using the area for at least 10 months. These 3 otters marked the first confirmed river otter in Cleveland Metroparks history. River otters are

a key indicator of watershed health (Helon et al. 2004). Considering the infamous stories of the Cuyahoga River catching fire in the 1960s (Rotman 2022), the presence of breeding otters provided a media opportunity to emphasize the conservation success of the clean-up and recovery of the Cuyahoga River and the importance of protecting habitat.

Trumpeter swans (*Cygnus buccinator*) were reintroduced into Ohio in 1996 through a joint effort that included the Ohio Division of Wildlife and the Cleveland Metroparks Zoo (CMZ; Mayo 2017). Since the reintroduction, populations have risen to 135 breeding pairs producing 259 cygnets in 2022 (ODNR 2023c). In 2022, Cleveland Metroparks recorded the first successful trumpeter swan nest on park property. News of the first cygnets in 2022 provided an opportunity to highlight the comprehensive efforts it takes to restore a species. This includes *ex-situ* conservation efforts by the CMZ to reintroduce the species, current CMZ national coordination of the trumpeter swan Species Survival Plan (Mayo 2017), state and federal management of invasive mute swans (MDNR 2012), and Cleveland Metroparks land management and wetland protection to provide habitat for this species.

Another species first recorded in Cleveland Metroparks in 2022 was a bobcat (*Lynx rufus*) captured on a wildlife camera on multiple occasions over a 4-month period. The last record of native bobcats in Ohio was 1855, according to the Ohio Division of Wildlife (ODNR 2023d). Though these observations were only of a single bobcat and did not indicate whether the animal was a resident or if there was breeding on Cleveland Metroparks property, the release of this story in the context of the species extirpation and conservation recovery caught the media’s attention. This resulted in >100 earned media stories across local, regional, and national publications, making it one of the most successful wildlife conservation stories Cleveland Metroparks has shared in recent years.

There are many challenges related to human–wildlife interactions in urban systems, and there is also risk of the urban public perceiving wildlife in urban systems as only nuisance species with little value. Finding ways to engage broader, more diverse audiences is important to make wildlife conservation relevant (Association of Fish and Wildlife Agencies 2019). Highlighting

the return of extirpated species like river otters, trumpeter swans, and bobcats in urban park systems offers opportunities to engage with the public and explain the incredible influence humans have on wildlife species and natural areas—not only in influencing the historic decline of wildlife species or the increase of generalist species in urban areas, but also the positive effects we can have in supporting green space, conservation, and restoration efforts.

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